### DOCUMENT RESUME

ED 440 588 HE 032 805

AUTHOR Thomas, Earl Preston

TITLE Taking the First Steps toward Graduate Education: A Report

on the Ronald E. McNair Postbaccalaureate Achievement

Program.

PUB DATE 1994-10-00

NOTE 50p.; The Ronald E. McNair Postbaccalaureate Achievement

Program is supported by funds from the U.S. Department of Education, the New Jersey Educational Opportunity Fund, and

Rutgers, The State University of New Jersey.

PUB TYPE Reports - Descriptive (141) EDRS PRICE MF01/PC02 Plus Postage.

DESCRIPTORS Academic Achievement; \*Access to Education; College

Admission; College Students; \*Diversity (Student); Doctoral Degrees; \*Graduate Study; Higher Education; Low Income Groups; Mentors; Minority Groups; Program Evaluation;

Student Improvement; Student Recruitment; Student Research

IDENTIFIERS First Generation Students; \*Rutgers the State University NJ

### ABSTRACT

This paper examines the diverse group of students in the Ronald E. McNair Postbaccalaureate Achievement Program at the New Brunswick/Piscataway campuses of Rutgers, the State University of New Jersey. This program identifies, recruits, prepares, and assists academically talented, first-generation, low-income, and traditionally underrepresented minority college students (sophomores, juniors, or seniors) and encourages them to enter programs that lead to doctoral degrees. Students are given intensive preparation for graduate school, including mentoring relationships with outstanding faculty, long-term research internships, continuous advisement, preparation for the Graduate Record Examination, acclimation to graduate school life and the academic department environment, and assistance with graduate school admissions. Four program goals are noted: improving academic performance, providing opportunities for research and scholarship, improving the likelihood of admission to graduate school, and preparing students for success in graduate/doctoral programs. The report finds that the program has been extraordinarily successful: of the first cohort of 16 students graduating in May 1993, 14 were admitted to graduate school. In the second cohort, which graduated in May 1994, 10 of 11 graduates were admitted to graduate school. Mentor and research internship assignments are appended. (SM)



Taking the First Steps Toward Graduate Education:

### A REPORT ON THE RONALD E. McNAIR POSTBACCALAUREATE ACHIEVEMENT PROGRAM

Writer: Earl Preston Thomas

Rutgers, The State University of New Jersey
October 1994

### **BEST COPY AVAILABLE**

PERMISSION TO REPRODUCE AND DISSEMINATE THIS MATERIAL HAS BEEN GRANTED BY

E.P. THOMAS

TO THE EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)

U.S. DEPARTMENT OF EDUCATION Office of Educational Research and Improvement EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)

- This document has been reproduced as received from the person or organization originating it.
- Minor changes have been made to improve reproduction quality.
- Points of view or opinions stated in this document do not necessarily represent official OERI position or policy.

### The Ronald E. McNair Postbaccalaureate Achievement Program Graduate School of Education Rutgers, The State University of New Jersey

Dr. Earl Vann Farrow Director

Dr. Muriel Grimmett Associate Director

The program is supported by funds from:

United States Department of Education New Jersey Educational Opportunity Fund Rutgers, The State University of New Jersey



### **SUMMARY**

### A Problem....

Academic talent alone will not ensure that a successful undergraduate will gain admission to graduate school. This is particularly true for first-generation, low-income, traditionally underrepresented minority students. They need training and mentoring to cope with and adapt to the distinct graduate culture as well as the academic requirements of graduate school. Without this preparation, many individuals cannot reach the academic heights of which they are capable. The result is well-known: Far too few men and women from traditionally underrepresented groups earn doctoral degrees. Society suffers a loss as well when bright and motivated individuals from diverse backgrounds do not enter graduate school.

### And a Solution....

The problem is being addressed on the New Brunswick / Piscataway campuses of Rutgers, The State University of New Jersey, through a program that provides selected undergraduates with intensive preparation for graduate school. The Ronald E. McNair Postbaccalaureate Achievement Program offers mentoring relationships with outstanding and dedicated faculty, long-term research internships, continuous advisement, preparation for the Graduate Record Examination, acclimation to graduate school life and the academic department environment, and assistance with graduate school admissions.

Founded in 1990-91, the McNair Program at Rutgers witnessed its first cohort of scholars graduate in May 1993. Of the sixteen students, fourteen, or 88 percent, were admitted to graduate school. They are now enrolled in graduate studies at Duke, Princeton, Rutgers, Tulane, Vanderbilt, and the state universities of Georgia, Iowa, Michigan, New York, and Pennsylvania. One other student has decided to take a sixth year of undergraduate study at Rutgers. Only one student of the original sixteen did not apply to graduate school. The second cohort of McNair Scholars graduated in May 1994. Of the twelve students, eleven applied to graduate school and one decided to remain at Rutgers for a fifth year. Ten of the eleven graduates, or 91 percent of the total cohort, were admitted to graduate school. Nine graduates, or 82 percent, will enroll in graduate school in the fall 1994, and one student who was accepted to graduate school has opted to defer admission for a year.

As these statistics and the following report show, the McNair Scholars Program clearly helps gifted students soar to greater heights. The success of the program has been extraordinary.



### A REPORT ON THE RONALD E. McNAIR POSTBACCALAUREATE ACHIEVEMENT PROGRAM

### **BACKGROUND AND PURPOSE**

Significant numbers of Rutgers' low-income, first-generation-college, and minority undergraduates are academically talented, and, with the appropriate preparation and nurturing, they have the potential to enter and succeed in graduate education. Most of the students in this pool, however, are not aware that graduate education is a viable option for them, nor are they fully prepared to enter the graduate admissions pipeline. In addition, these students need to develop and strengthen the academic research skills required to be strong candidates for admission to graduate school and successful graduate students once they are enrolled.

The purpose of the Ronald E. McNair Postbaccalaureate Achievement Program is to identify, recruit, prepare, and assist academically talented first-generation, low-income, and traditionally underrepresented minority college students, who are sophomores, juniors, or seniors to enter graduate programs which lead to doctoral degrees. The project addresses the problem that too few undergraduates from these groups go on to earn doctorates. The program focuses on providing intensive preparation for graduate school.

The project receives much of its funding from the federal Ronald E. McNair Postbaccalaureate Achievement Program, administered by the U.S. Department of Education. The program honors the memory of astronaut Ronald E. McNair, a mission specialist who died in the explosion of the Challenger space shuttle in 1986. Dr. McNair was a graduate of North Carolina A&T State University and earned a Ph.D. in physics from MIT in 1976.

Rutgers, The State University of New Jersey, is one of 68 institutions nationwide that administer a McNair program on campus. Rutgers has a strong commitment to educating first-generation-college and minority youth and ranks as one of the country's top institutions in the successful recruitment, admission, and graduation of minority students. The University is committed to increasing its enrollment of minority graduate students as well. Rutgers faculty, moreover, have demonstrated a commitment to serving low-income, first-generation, and minority students. The McNair Scholars Program has been able to capitalize on this interest and has built a cadre of key faculty who work closely with the project. Program staff have also marshaled interest among the University's academic and student services departments in advancing the purposes and objectives of the McNair program.



### CHARACTERISTICS OF THE TARGET GROUP

The students the project seeks to identify, recruit, and enroll have a number of characteristics in common. They are:

- 1. Lack of family members or friends who are knowledgeable about graduate education and provide support and encouragement to pursue graduate study as an option.
- 2. Indebtedness resulting from loans to finance undergraduate education.
- 3. Limited knowledge of the various graduate-level careers related to their major field of study and tendency to view law, medicine, and other professions as the only viable postbaccalaureate options.
- 4. Lack of access to and close contact with faculty and other staff who are working on research in their major field of undergraduate study.
- 5. Lack of exposure to the culture of academic departments and the research community.
- 6. Lack of basic library, laboratory, and analytical/quantitative research skills.
- 7. Lack of training in understanding and utilizing computer technology in the research process.
- 8. Limited academic advisement focused on graduate school.
- 9. Lack of knowledge about the graduate school application process.
- 10. Lack of knowledge about the "culture" of graduate school life.
- 11. Limited financial resources and lack of knowledge about financial aid for graduate education.

### PILOT PROGRAM

In 1990, Rutgers obtained a grant to operate a one-year program to prepare women and minority students to enter graduate school. The program focused on first-generation-college and low-income undergraduates. Participants were recruited near the end of their junior year and spent eight weeks in summer 1990 -- between their junior and senior years -- working with faculty mentors on supervised research projects. An evaluation of mentor experiences revealed that the students lacked a sufficient understanding of the (1) basic research methods, (2) bibliographic research techniques, and (3) computer technology needed to participate fully in the program's research internship experience and to succeed in graduate education. Being bright simply was not



enough. It was clear to faculty and program planners that a one-year program that included a single summer phase was inadequate preparation time for first-generation, low-income, and traditionally underrepresented students. As a result, additional time and activities to address these needs were designed and built into the McNair Program.

### DIVERSITY OF McNAIR SCHOLARS

Table 1, a diversity table, contains 1990 to 1994 data on the McNair Scholars' race, sex, and academic major by cohort. The total enrollment of the program was 74 percent female and 26 percent male. The racial/ ethnic composition of all cohorts combined was 42 percent Black, 18 percent Puerto Rican, 30 percent Other Hispanic, and 9 percent White.

The 57 students who participated in the program represent 16 major fields of study. The largest cluster of students was in Psychology--35 percent of the total enrollment. Sixteen percent of the participants were Political Science majors and 12 percent were in English. Ethnic Studies, History, and Communications each accounted for 7 percent of the students, and another 7 percent majored in either Engineering, Mathematics, or Science. The remaining 9 percent of the students were enrolled in Administration of Justice, Journalism, Spanish, and Sociology.

Most McNair Scholars were social science and humanities majors, and, in fact, the program's courses, seminars, workshops, faculty linkages, and other activities are structured to primarily serve students in these two broad areas. This approach is not only cost-effective but also educationally sound. Prior experience has demonstrated that postbaccalaureate preparation in many of the sciences would require very different programming which is too costly to justify and too difficult to manage. In addition, Rutgers has numerous programs and opportunities available in the sciences, designed specifically for academically talented low-income and traditionally underrepresented students.



Table 1

|                |     |              | McNair      | Progr | am Diversity | Table | 1990 t | o 1994           |        |                       |
|----------------|-----|--------------|-------------|-------|--------------|-------|--------|------------------|--------|-----------------------|
|                |     | 0-91<br>hort | 1991<br>Coh |       | 1992<br>Coh  |       |        | 993-94<br>Cohort |        | Program<br>s Combined |
|                | No. | Pct.         | No.         | Pct.  | No.          | Pct.  | No     | . Pct.           | Number | Percent               |
| Asian          | 0   | 0.0          | 0           | 0.0   | 0            | 0.0   | 1      | 7.2              | 1      | 1.8                   |
| Female         | 0   | 0.0          | 0           | 0.0   | 0            | 0.0   | 1      | 7.2              | 1      | 1.8                   |
| Male           | 0   | 0.0          | 0           | 0.0   | 0            | 0.0   | 0      | 0.0              | 0      | 0.0                   |
| Black          | 8   | 50.0         | 5           | 41.7  | 6            | 40.0  | 5      | 35.7             | 24     | 42.1                  |
| Female         | 5   | 31.2         | 4           | 33.3  | 2            | 13.3  | 4      | 28.5             | 15     | 26.3                  |
| Male           | 3   | 18.8         | 1           | 8.3   | 4            | 26.7  | 1      | 7.2              | 9      | 15.8                  |
| Other Hispanic | 6   | 37.5         | 4           | 33.3  | 3            | 20.0  | 4      | 28.5             | 17     | 29.8                  |
| Female         | 4   | 25.0         | 3           | 25.0  | 2            | 13.3  | 4      | 28.5             | 13     | 22.9                  |
| Male           | 2   | 12.5         | 1           | 8.3   | 1            | 6.7   | 0      | 0.0              | 4      | 7.0                   |
| Puerto Rican   | 1   | 6.3          | 2           | 16.7  | 4            | 26.7  | 3      | 21.4             | 10     | 17.5                  |
| Female         | 1   | 6.3          | 1           | 8.3   | 4            | 26.7  | 3      | 21.4             | 9      | 15.7                  |
| Male           | 0   | 0.0          | 1           | 8.3   | 0            | 0.0   | 0      | 0.0              | 1      | 1.8                   |
| White          | 1   | 6.3          | 1           | 8.3   | 2            | 13.3  | 1      | 7.2              | 5      | 8.8                   |
| Female         | 0   | 0.0          | 1           | 8.3   | 2            | 13.3  | 1      | 7.2              | 4      | 7.0                   |
| Male           | 1   | 6.3          | 0           | 0.0   | 0            | 0.0   | 0      | 0.0              | 1      | 1.8                   |
| Total Female   | 10  | 62.5         | 9           | 75.0  | 10           | 66.7  | 13     | 92.8             | 42     | 73.7                  |
| Total Male     | 6   | 37.5         | 3           | 25.0  | 4            | 33.3  | 1      | 7.2              | 15     | 26.3                  |
| Grand Total    | 16  | 100.0        | 12          | 100.0 | 15           | 100.0 | 14     | 100.0            | 57     | 100.0                 |

|            |          |       |              | Academi    | c Majors of Mc | Nair Pa | rticipants |            |              |       |
|------------|----------|-------|--------------|------------|----------------|---------|------------|------------|--------------|-------|
|            |          |       |              |            | 1990-91 Co     | hort    |            |            |              |       |
| Africa S   | Stud     | Math  | Psycholo     | gy Pol     | itical Sci I   | History | Spanis     | h Physics  | Journalism   | TOTAL |
| 1          | l        | 1     | 6            |            | 3              | 2       | 1          | 1          | 1            | 16    |
|            |          |       |              |            | 1991-92 Col    | nort    |            |            |              |       |
| English    | Psycholo | gy P  | olitical Sci | History    | Biology        |         | Sociolog   | y Co       | mmunications | TOTAL |
| 3          | 4        |       | 1            | 1          | 1              |         | 1          |            | 1            | 12    |
|            |          |       |              |            | 1992-93 Co     | hort    |            |            |              |       |
| Elec Eng   | English  | Psych | ology Pol    | itical Sci | Communication  | ons A   | Afr Stud   | Latin Stud | PRican Stud  | TOTAL |
| 1          | 2        | 5     |              | 1          | 2              |         | 2          | 1          | 1            | 15    |
|            |          |       |              |            | 1993-94 Co     | hort    |            |            |              |       |
| Adm Justic | e Eng    | glish | Hist/Poli So | ci Journ   | & Mass Media   | Politi  | cal Sci    | Psychology | Spanish      | TOTAL |
| 1          |          | 2     | 1            |            | 1              |         | 3          | 5          | 1            | 14    |





### RECRUITMENT AND SELECTION

In order for students to gain admission and be successful in graduate education, they must be academically talented and part of the relatively small proportion of college undergraduates who rank at the top of their classes. The McNair Scholars Program is not for students whose performance in college courses is average or sporadically good. McNair participants need to be well-above-average to superior students who are committed to scholarship and interested in graduate study. They must demonstrate that academic achievement and excellence are important to them, that they are willing to commit themselves to long-term scholarly activity, that they can develop positive relationships with faculty and other university and program staff, and that they are willing to commit themselves to the two-year McNair program cycle.

Students enter the program in their sophomore year and remain until graduation from undergraduate school. To date, four cohorts of students -- (1) sixteen students in 1990-91, (2) twelve students in 1991-92, (3) fifteen students in 1992-93, and (4) fourteen students in 1993-94 have been recruited and selected through the program's standard four-step process.

The first step in the process consists of a review and analysis of the student databases of Rutgers' Student Support Services (SSS) and the New Jersey Economic Opportunity Fund Program (EOF) by McNair staff in collaboration with SSS and EOF staff. The objective is to identify students who meet TRIO eligibility criteria, have a grade point average of 3.0 or better, and have the potential to succeed in graduate study. Additional candidates are recommended for screening by McNair mentors and other University faculty.

In the second step, the candidates in the pool are sent brochures and other program information and are invited to an initial informational session where they receive application packets. Invited candidates who cannot attend the orientation meeting are mailed application materials and receive follow-up telephone contacts from program staff. A series of informational/orientation meetings is held to enable candidates to learn more about the program.

During step three, candidates work on completing the McNair program application. During this period, candidates have frequent telephone and in-person contacts with program staff, who talk with them about graduate education, respond to their questions about the program, and guide them through the application process. The McNair program application includes sections requesting information on general demographic and background indicators, family background, family income and undergraduate financial aid, college major, and courses studied. The application also includes formal faculty recommendations and requires students to write a personal essay.

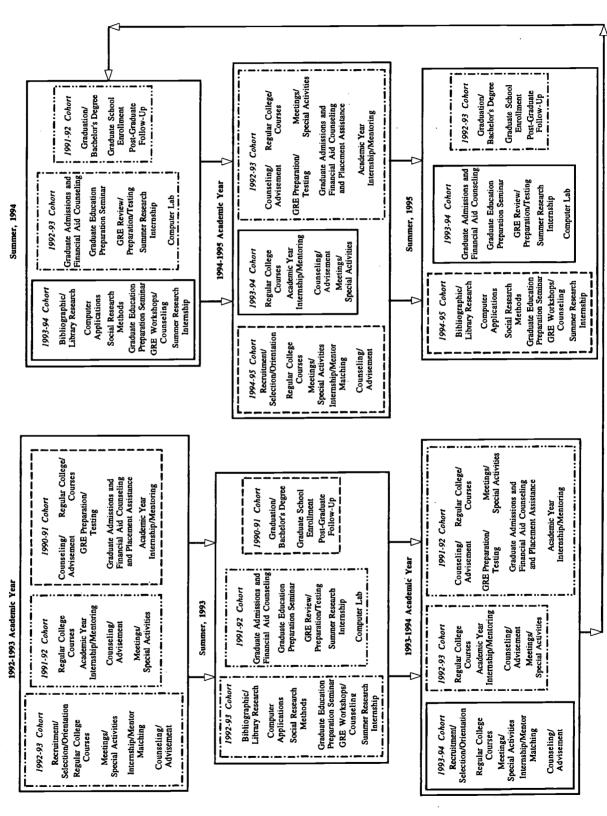


During step four, candidates are screened for program eligibility criteria, a consistent level of academic performance, and an interest in entering graduate rather than professional education. Selected candidates who meet eligibility requirements, show the greatest promise, and want to join the program are interviewed by program staff. Students are selected and offered a place in the incoming cohort on a "rolling admissions" basis.

McNair Scholars remain in the program for two years, including summers. Figure 1 is a graphic illustration of the 1992-1995 program cycle with the activity of each entering cohort indicated.



Figure 1 Program Activities October 1992 to September 1995





### PREPARING McNAIR SCHOLARS FOR GRADUATE EDUCATION

A variety of strategies and activities are used to accomplish the four major goals of the McNair Scholars Program. They are: (1) improving academic performance, (2) providing opportunities for research and other scholarly activity, (3) improving the likelihood of admission to graduate programs of choice, and (4) preparing students for success in graduate/doctoral studies. Many McNair program activities will be mentioned in more than one of these categories. The repetition is essential; the program was designed as an integrated services preparation model, which assumes that program activities are neither mutually exclusive nor linked only to a single desired outcome.

### GOAL: IMPROVING ACADEMIC PERFORMANCE

Maintaining a high grade point average (GPA) is essential for students who want to enter graduate school. The program tries to recruit students who demonstrate they can perform in the 3.0 or better GPA range. The program activities used to maintain or improve academic performance are:

- 1. <u>Monitoring Participants' Academic Performance</u> -- Frequent meetings with students, the review of transcripts and grade reports each semester, and selected faculty contacts are used to monitor the academic performance of McNair Scholars. Faculty mentors stay informed of students' performance and progress at the department level and are in frequent communication with McNair program staff.
- 2. Providing Academic Counseling and Facilitating Appropriate Academic Advisement for Participants -- Project staff review participants' course selection each semester and work collaboratively with participants' academic advisers and faculty mentors to insure that each student takes the appropriate courses and number of credits. In many instances, a participant's official adviser is also the assigned faculty mentor, which makes communication and activity on the student's behalf easier to facilitate.
- 3. <u>Tutoring for Participants Who Are Having Difficulty or Wish to Earn a Higher Course</u>

  <u>Grade</u> -- Tutoring is available and is utilized on an as-needed basis. To date, few

  McNairs have required the intervention of a tutor because their course work was too



difficult. Traditionally, college students dislike the practice of seeking a tutor to get a higher grade in a course they are passing successfully, however, more McNair participants are beginning to take advantage of this option to strengthen their course performance and improve their GPA.

- 4. <u>Strengthening Participants' Academic Skills Through Special Courses</u> -- The courses McNair Scholars take during their first summer are designed to provide the knowledge and skills that faculty consider essential for meaningful participation in the research internship. The courses were designed to have interdisciplinary linkages, i.e., course content and instruction are coordinated so that what participants learn in one course is relevant to what they are expected to learn in other courses. The McNair summer courses are described below.
  - (a) "Utilizing the Computer as a Tool for Learning." Prior to enrollment in the program, perhaps two of forty-two McNair Scholars were able to use a computer efficiently and go beyond producing simple, poorly formatted writing assignments. The program's summer course in computer instruction provides advanced computer-word-processing, database, and spreadsheet skills that enable participants to achieve or maintain higher standing in many of their regular courses. McNair Scholars also become familiar with simulations and learn to use data analysis software applications that are unique to their discipline.
  - (b) "Bibliographic Research Techniques." Participants benefit almost immediately from this summer course, applying their newly learned skills and knowledge of library research to their course work the following semester. They learn to use the new technology associated with bibliographic research, perform computer searches, and become familiar with the INTERNET system. Participants say the course enables them to conceive, develop, and write stronger research papers for their undergraduate courses.
  - (c) "Introduction to Social Research." After the initial pilot program in 1990, faculty mentor/research supervisors requested that all participants complete a course of study to learn enough research basics to participate meaningfully in the research internship experience. Program staff and faculty



subsequently designed this summer course, which emphasizes the scientific method and strengthens participants' critical thinking, analytical, and problem-solving skills. Participants say the course enables them to read and understand research reports and articles associated with their regular courses at a higher level of mastery than most other students in their classes. As a result of the interdisciplinary linkage with the computer applications course, participants learn to use data analysis software such as SPSS and SAS.

5. <u>Access to Computers</u> -- Graduate students need to know how to use computer technology and applications as tools for learning prior to entering graduate school. The McNair program has a small number of desktop computers for participants' use, which are located on the same floor where the program is housed. The McNair computers are in constant use by participants.

### GOAL: PROVIDING OPPORTUNITIES FOR RESEARCH AND OTHER SCHOLARLY ACTIVITY

Participants have the opportunity to engage in research and other scholarly activity through (1) McNair summer and academic year research internships, (2) University-sponsored departmental and special honors research programs, and (3) participation in academic symposiums and conferences with faculty mentors and McNair program staff.

- 1. <u>Summer and Academic Year Research Internships</u> -- McNair Scholars engage in extensive and intensive research activity through their internships. During the two years they are in the program, the scholars engage in (a) forty hours of internship preparation, orientation, and initial activity during the summer after their sophomore year (five hours per week for eight weeks); (b) ten hours per week assigned internship activity during their junior year, (c) a full-time internship the summer after their junior year, and (d) another ten hours per week assigned internship during their senior year. Participants also complete a major research paper during their senior year based on their internship. Appendix A lists the research internships in which McNair Scholars and their faculty mentors have participated.
- 2. <u>University-Sponsored Departmental and Special Honors Research Programs</u> -- Some McNair participants are selected for departmental honors programs and special



University honors such as the Henry Rutgers, Mabel Smith Douglass, and Paul Robeson programs, all of which have a research requirement. Since McNair seniors are required to complete a research paper based on their work with faculty mentors, the McNair project also meets the requirements of the special honors programs. Twelve McNair scholars have participated in University honors research.

3. Participation in Academic Symposiums and Conferences with Faculty Mentors and McNair Program Staff -- McNair Scholars have participated in conferences and professional meetings, but the number of students and level of their participation in these activities have been limited by the amount of available funds. The events and number of McNair participants involved are listed below:

| November 1992 | McNair National Student Conference, Fontana, Wisconsin. |
|---------------|---|
|               | Eight McNair participants.                              |

| March 1993 | Society for I | Research in Child Development, New Orleans, |
|------------|---------------|---|
|            | Louisiana.    | Two McNair participants and their faculty   |
|            | mentors.      |   |

| April 1993 | Eastern Psychological Association, Washington, D.C. Two |
|------------|---|
| •          | McNair participants and their faculty mentors.          |

| April 1993 | Annual McNair Program Reception/Banquet, New               |
|------------|--|
|            | Brunswick, New Jersey. Presentation of Graduating          |
|            | Seniors' McNair Research Projects. Sixty-eight McNair      |
|            | participants, mentors, and guests present. Thirteen McNair |
|            | senior presentations.                                      |

| October 1993 | Graduate Record Examination Forum, Adams Mark Hotel,      |
|--------------|---|
|              | Philadelphia, Pennsylvania. Fourteen McNair participants. |

| November 1993 | Second Annual McNair Students' Conference, Delavan, |
|---------------|---|
|               | Wisconsin, Eight McNair participants.               |



April 1994

Annual McNair Program/Banquet, New Brunswick, New Jersey. Presentation of Graduating Seniors' McNair Research Projects. Seventy-six McNair participants, mentors, and guests present. Twelve McNair senior presentations.

August 1994

The American Society of Parasitologists' Conference, Colorado State University, Fort Collins, Colorado. One McNair participant.

### GOAL: IMPROVING THE LIKELIHOOD OF ADMISSION TO GRADUATE PROGRAMS OF CHOICE

The program provides a comprehensive array of activities to (1) familiarize students with the graduate school admissions and financial aid process, (2) facilitate participant advisement about the identification and selection of appropriate graduate programs and schools, (3) provide graduate education preparation seminars and workshops, including Graduate Record Examination preparation, (4) assist participants to complete the admissions and financial aid application process, and (5) monitor participant progress through the graduate admissions and financial aid application process. The program activities designed to meet these needs are presented below.

1. In their initial summer in the program. McNair Scholars entering their junior year participate in an initial series of informational workshops, seminars, and meetings. These sessions, as well as follow-up sessions, are conducted by Rutgers' Office of Graduate Admissions, Office of Student Financial Aid, and Division of Career Services. Staff from these three University units use case examples to provide McNair Scholars with an understanding of the graduate admissions and financial aid process, the timelines, steps, and requirements of the admissions process, sources of financial aid, and resources and reference materials needed for the application process.

<u>University Career Services and McNair program staff work with McNair participants</u> <u>during the academic year</u>. Their task is to help participants identify suitable graduate programs and possible sources of financial aid, obtain applications to graduate school, and begin the process of completing the applications. Career Services and McNair staff



also use small group and individual meetings to help participants learn more about general and specific careers in their major field of study and focus their career interest.

- 2. McNair staff facilitate the advisement process to assist participants in the identification and selection of appropriate graduate programs, schools, and sources of financial aid. The program creates an advisement/information loop for participants that includes (1) McNair staff, (2) the faculty mentor/adviser, and (3) the Office of Career Services. While their roles often overlap, McNair staff primarily work on ensuring that participants make full use of available faculty and University resources and focus participants' thinking about the important decisions they need to make. McNair and Career Services staff help participants identify graduate schools and sources of financial aid. Faculty mentors/research supervisors help participants identify appropriate graduate schools, often facilitating the admissions process by contacting colleagues at other universities.
- 3. Graduate Record Examination (GRE) Preparation Workshops and review activities are provided for participants. McNair Scholars first receive GRE preparation during the initial eight-week summer program following their sophomore year. A beginning workshop series, taught by The Princeton Review and consisting of 24 hours of intense instruction, training, testing, individual performance analysis, and test performance counseling, is provided over the eight weeks. Follow-up and review sessions, also conducted by The Princeton Review, are conducted at key points over the subsequent twelve months. In addition, GRE practice software is installed on the McNair computers, so participants can work on strengthening their GRE performance. During the academic year, McNair staff use Princeton Review analyses of participants' strengths and weaknesses to encourage and guide their preparation for upcoming GRE testings. The McNair program pays GRE testing fees, and all participants are encouraged to take the GRE twice. The initial summer workshop has produced positive results among participants. The students' performance on workshop mini-subtests improves substantially over the eight weeks. As a result of the workshops, students score higher than they normally would on the first official GRE they take.

A Graduate Education Preparation Seminar is conducted during the summer program for participants who are entering their senior year. The instructor uses expert



University staff from offices such as Graduate Admissions, Financial Aid, and Career Services, and conducts group and individual sessions with participants, providing the opportunity to: (1) interact and discuss graduate school with actual graduate students, (2) develop a personal statement, (3) identify and work with faculty who will be providing references for graduate school applications, and (4) complete the applications they will submit to graduate schools.

- 4. McNair Staff provide direct assistance to participants in the completion of the graduate school and financial aid application process. Staff review applications as the participants work on them, provide advice and guidance about references and other supporting documentation, and approve completed application forms before they are mailed to graduate schools. McNair and Career Services staff help participants identify graduate schools and sources of financial aid. Staff also review participants' completed financial aid forms to insure they are error-free, and, when necessary, arrange for consultations between McNair seniors and University financial aid office staff. Both McNair staff and participants are aware that mistakes on financial aid forms can be costly and, on occasion, virtually impossible to correct.
- 5. McNair staff monitor participants' progress and performance and conduct intense monitoring of seniors during the graduate school and financial aid application process. All participants are given appointments to meet monthly with McNair staff. During the summer component, program staff have frequent contacts with instructors, faculty mentor/research supervisors, and participants in order to monitor student progress. McNair seniors meet more frequently with staff during the graduate school and financial aid application process--often as much as once or twice a week. While program staff work closely with McNair Scholars throughout the senior year, the period of most intense activity occurs from the summer before the senior year to the end of the fall semester.

### GOAL: PREPARING STUDENTS FOR SUCCESS IN GRADUATE/DOCTORAL STUDIES

The program seeks to provide participants with: (1) knowledge and skills, (2) experiences, and (3) services that are known to be critical to success in graduate education. Of course, the entire McNair program is designed to prepare students for success in graduate studies at the doctoral



level. <u>Preparation is the theme that underlies all program activity</u>. The sequencing of activity for participants over the two-year program cycle is intended to ensure that McNair Scholars internalize the attitudes and behaviors that will be required of them in graduate school. These attitudes and behaviors, as well as the self-confidence it takes to compete in the graduate school environment, must be learned and acquired, and that takes time. First-generation-college, minority, and traditionally underrepresented students need considerable training and "seasoning" to cope with and adapt to the new culture and requirements of graduate school. The McNair program is an effort to provide participants with that essential training and "seasoning."

- 1. The McNair program provides participants with the knowledge and skills needed to succeed in graduate studies. The program activities that have the greatest impact on increasing McNair Scholars' knowledge and skills for success in graduate education are: (1) the three courses participants take during their first summer in the program -- Research Methods, Bibliographic Research, and Computer Applications, (2) the research internship, (3) the research project/report, (4) the graduate education preparation seminar, (5) Graduate Record Examination workshops, (6) regular contacts with McNair staff and McNair special events, (7) utilization of the computer lab, (8) counseling/advisement, and (9) faculty mentoring and exposure to the culture of the academic department.
- 2. The McNair program provides participants with the experiences needed to succeed in graduate studies. The program activities that have the greatest impact on providing participants with the experiences important to success in graduate school are: (1) the research internship, (2) the research project/report, (3) the graduate education preparation seminar, (4) regular contacts with McNair staff and McNair special events, (5) counseling/advisement, and (6) faculty mentoring and exposure to the culture of the academic department.
- 3. The McNair program provides participants with the services needed to ensure they succeed in graduate studies. The program features that have the greatest impact on providing participants with the services important to success in graduate school are: (1) a proven program design, (2) detailed planning and reflective management, (3) the quality of program staff, (4) excellent collaboration and cooperation among diverse



units and departments at Rutgers University, and (5) the availability of multiple funding sources to finance a comprehensive two-year program cycle.

### ASSESSMENT OF STRATEGIES AND ACTIVITIES

The overall design of the McNair Scholars Program has proven successful. The combination of courses, workshops, mentoring, participant research, and McNair staff support has produced outstanding results, and program activities and services are constantly fine-tuned to reflect participant needs and changing conditions.

The least successful aspect of the program--and one over which McNair staff have no control--has been in obtaining sufficient financial aid awards for students admitted to graduate school. Three students in the May 1993 first cohort of graduates were accepted at graduate schools, but had to defer admission because the financial aid packages they were offered left considerable unmet need.

More recently, an attempt to broaden the pool of students recruited for the McNair program produced disappointing results. The intention was to determine the extent that academically talented, first-generation-college, minority, and traditionally underrepresented students who were also high-risk candidates for graduate education could benefit from McNair. It was a gamble; program staff hoped the odds were in the high-risk students' favor, and, once they were in the McNair program, the students would become good candidates for graduate school.

The non-academic criteria for selecting McNair participants were relaxed in 1992-93, and a significant number of students who were less mature, less personally secure, and less able to focus their thinking, attitudes, and behavior on scholarly goals were admitted to the program. Their academic performance met the McNair GPA criteria of 3.0 or better; it was these non-academic factors that made the group "high-risk." These students had unrealistic notions about their ability to make informed decisions. They also needed more intense academic and personal counseling. Unfortunately, the most intense efforts of McNair staff have not mitigated these students' problems. If this group continues to perform as they have for the past year, it is likely the 1992-93 cohort will fall short of the achievements of the 1990-91 and 1991-92 cohorts.

The program's experience with the 1992-93 cohort reinforced the wisdom of the original selection criteria. Graduate school is not for everyone, and there is a large investment of fiscal and human resources in each McNair participant. So it is critical that when selections for admission to McNair are made, the Scholars are chosen wisely.



### PROJECT RESULTS

### RESULTS: IMPROVING ACADEMIC PERFORMANCE

Most McNair participants maintain strong grade point averages. Table 2 lists the participants by cohort and recent cumulative grade point average (CGPA). The 1990-91 cohort graduated Rutgers in May 1993. Although two participants ended their undergraduate years with a final spring 1993 CGPA below 3.0, the cohort mean was 3.474. CGPA data for the 1991-92 cohort, which graduated Rutgers in May 1994, indicate that all of the participants in that cohort were above 3.0 and had a mean CGPA of 3.440. Spring semester 1994 data for the 1992-93 cohort revealed that two students had a CGPA below 3.0 and the cohort had a mean CGPA of 3.283. CGPA data for the most recent group of students to enter the program, the 1993-94 cohort, showed that two students had a CGPA below 3.0 and the mean CGPA for the group was 3.366.

It is important for participants to maintain a strong GPA. Program staff have observed that, over time, many participants--through hard work and perseverance--are able to increase their CGPAs toward the 3.5 level. They are the most attractive candidates in the eyes of graduate school admissions offices.



# Table 2 Cumulative Grade Point Average of McNair Scholars

| 1990-91 Cohort       | Fall '91 Spr '93 Fall '93 Spr ,94 | .93 Spr ,94 | 1992-93 Cohort | Fall '93 | Fall '93 Spr '94 |
|----------------------|-----------------------------------|-------------|----------------|----------|------------------|
| Stud No.             | CGPA CGPA CGP                     | A CGPA      | Stud No.       | CGPA     | CGPA             |
| 1                    | 3.521G                            |             | 29             | 3.488    | 3.473            |
| 2                    | 3.532G                            |             | 30             | 3.532    | 3.474            |
| 3                    | 3.430G                            |             | 31             | 3.407    | 3.403            |
| 4                    | 3.489G                            |             | 32             | 3.388    | 3.405            |
| ν.                   | 3.453G                            |             | 33             | 3.069    | 3.146            |
| 9                    | 3.512 <sup>G</sup>                |             | 34             | 3.481    | 3.446G           |
| 7                    | 2.877G                            |             | 35             | 3.278    | 3.203            |
| <b>∞</b>             | 2.809G                            |             | 36             | 3.234    | 3.179            |
| 6                    | 3.4326                            |             | 37             | 3.529    | 3.556            |
| 10                   |                                   |             | 38             | 3.352    | 3.555            |
| 11                   |                                   | 1 3.094     | 39             | 3.084    | 2.979            |
| 12                   | 3.824G                            |             | 40             | 3.319    | 3.286            |
| 13                   | 3.899G                            |             | 41             | 2.885    | 2.581            |
| 14                   | 3.673G                            |             | 42             | 3.127    |                  |
| 15                   |                                   |             | 43             | 3.445    | 3.437            |
| 16                   | 3.752 3.752 <sup>G</sup>          | 2G          |                |          |                  |
|                      |                                   |             | 1993-94 Cohort |          |                  |
| 1991-92 Cohort       |                                   |             |                |          |                  |
|                      |                                   |             | 44             | 3.536    | 3.605            |
| 17                   | 3.855                             | 5 3.869G    | 45             | 3.235    | 3.253            |
| 18                   | 3.60                              |             | 46             | 3.155    | 3.198            |
| 19                   | 3.11                              |             | 47             | 3.397    | 3.284            |
| 20                   | 3.25                              |             | 48             | 2.832    | 2.832            |
| 21                   | 3.809                             |             | 49             | 3.293    | 3.295            |
| 22                   | 3.36                              |             | 50             | 3.595    | 3.589            |
| 23                   | 3.12                              |             | 51             | 3.455    | 3.385            |
| 24                   | 3.59                              |             | 52             | 3.707    | 3.758            |
| 25                   | 3.687                             |             | 53             | 3.275    | 3.295            |
| 26                   | 3.34                              |             | 54             | 3.725    | 3.752            |
| 27                   | 3.518                             |             | 55             | 3.435    | 3.485            |
| 28                   | 3.81                              |             | 26             | 3.647    | 3.572            |
|                      |                                   |             | 57             | 2.793    | 2.821            |
| KEY: $G = Graduated$ |                                   |             |                |          |                  |



### RESULTS: PROVIDING OPPORTUNITIES FOR RESEARCH AND OTHER SCHOLARLY ACTIVITY

1992-93 Research Internships. Twenty-five McNair Scholars participated in research internships during 1992-93. They included thirteen of fifteen seniors, or 87 percent of the 1990-91 cohort, and twelve juniors, or 100 percent of the 1991-92 cohort. McNair seniors (1990-91 cohort) completed their final year of research internships and developed reports on topics that included: (1) Race, Class, and Economic Development: A Case Study of Newark, New Jersey [Political Science], (2) Radial-Arm Maze Complexity and Duration of Negative Contrast [Psychology], (3) Analysis of Nonstandard Items on the New Jersey Basic Skills Test [Mathematics], and (4) A Comparative Analysis of Cuba Post 1959 to the Present. Juniors worked on topics such as: (1) Democracy and the Judicial Role [Political Science], (2) Agriculture and Development Planning on the Rural/Urban Fringe [Human Ecology], (3) The Differences in Characteristics of Child and Teacher Behavior in Cooperative School Periods [Education], and (4) Parasite Habitat Selection: Behavior in a Predictable Environment [Animal Science]. A complete listing of 1992-93 research internships is included in Appendix A.

1993-94 Research Internships. Twenty-six McNair Scholars participated in research internships during 1993-94. They included twelve 1994 graduating seniors, or 100 percent of the 1991-92 cohort, and fourteen juniors, or 100 percent of the 1992-93 cohort. The twelve McNair seniors completed their final year of research internships and developed reports on topics such as:

(1) Differential Lipid Metabolism in Migratory Frugivorous Songbirds [Biological Sciences], (2) Public Perceptions of the Jury Selection Process [Sociology], (3) An Analysis of Three Contemporary African Artists [English], and (4) Computer Simulation and Analysis of the Forces and Stresses Which Exist in the Design and Fabrication of Robotic Limbs [Mechanical and Aerospace Engineering]. A complete listing of 1993-94 research internships is included in Appendix A.

### RESULTS: IMPROVING THE LIKELIHOOD OF ADMISSION TO GRADUATE SCHOOL

The McNair Program at Rutgers witnessed its first cohort of scholars graduate in May 1993. Of the sixteen students, fourteen, or 88 percent, were admitted to graduate school. They are now enrolled in graduate studies at Duke, Princeton, Rutgers, Tulane, Vanderbilt, and the state universities of Georgia, Iowa, Michigan, New York, and Pennsylvania. One other student has



decided to take a sixth year of undergraduate study at Rutgers. Only one student of the original sixteen did not apply to graduate school. The second cohort of McNair Scholars graduated in May 1994. Of the twelve students in the original cohort, eleven applied to graduate school and one decided to remain at Rutgers for a fifth year. Ten of the eleven graduates, or 91 percent of the total cohort, were admitted to graduate school. Nine graduates, or 82 percent, will enroll in graduate school in the fall 1994, and one graduate who was accepted to graduate school has deferred admission for a year. Table 3 shows the September 1994 enrollment status of the 1990-91 and 1991-92 cohorts.

The universities McNair graduates are attending include:

Carnegie Melon University

Columbia University

**Duke University** 

Fordham University

Hofstra University

Michigan State University

New York University

Princeton University

Rutgers University

Tulane University

Vanderbilt University

Widener University

State University of New York at Albany

State University of New York at Buffalo

University of Georgia

University of Iowa

University of Michigan

University of North Carolina

University of Pennsylvania



Table 3
Graduate School Placements of Rutgers McNair Scholars

|   | 1990-91 Cohort | 1991-92 Cohor |
|---|----------------|---------------|
| Cohort Size   | 16<br>100.0%   | 12<br>100.0%  |
| #/% Graduated<br>College                                | 15<br>93.7%    | 11<br>91.7    |
| #/% Still Enrolled in College                           | 1<br>6.3%      | 1<br>8.3%     |
| #/% Graduated or<br>Still Enrolled in College           | 16<br>100.0%   | 12<br>100.0%  |
| #/% Graduates Applied to Graduate School                | 14<br>93.3%    | 11<br>100.0%  |
| #/% Graduates Admitted to Graduate School               | 14<br>93.3%    | 10<br>90.9%   |
| #/ Graduates Not Admitted to Graduate School            | 0              | 1<br>9.1%     |
| #/% Graduates Deferred '94 Admission to Graduate School | 0              | 1<br>9.1%     |
| #/% Graduates Enrolled in Graduate School 9/94          | 14<br>93.3%    | 9<br>81.8%    |



### RESULTS: PREPARING STUDENTS FOR SUCCESS IN GRADUATE/DOCTORAL STUDIES

The McNair program design emphasizes preparation. The research internship experience, which was previously discussed, prepares students for realistic roles in the research process. Faculty mentoring, experience within academic departments, and the Graduate Education Preparation Seminar prepare McNair Scholars for graduate school culture and life within academic departments. Appropriate advisement and support are designed to ensure that students take the appropriate courses and marshal their strongest efforts to achieve and maintain strong grade point averages.

Table 4 presents the GRE scores of the first three McNair cohorts and the latest published national GRE data, in the form of 1990-91 national means by race/ethnicity. McNair Scholars have consistently performed well on the GRE. Program staff and students alike are convinced that this performance has been significantly enhanced by the utilization of GRE workshops and the availability of GRE practice software on computers.

The mean scores on the verbal, math, and analytical sections of the GRE for Black McNair Scholars in all three cohorts are above the 1990-91 national means on those subtests for Blacks. The mean scores on the subtests for Hispanic McNair Scholars in all three cohorts are lower than the 1990-91 national means, but the scores for Puerto Ricans are significantly higher. The mean scores for White McNair Scholars are higher than the 1990-91 national means on some subtests and lower on others. The subtest scores for White McNair Scholars in the 1992-93 cohort are particularly low and indicate that a great deal of work will need to be done to boost them. Overall, however, the GRE scores for participants in general have been very positive.



Table 4
GRE Scores By McNair Cohort and 1990-91 National GRE Mean Scores

| 1990-91      | McNair Co | ohort |            | 1990-91 Mean GRE ScoresAll Test Takers |        |      |            |  |
|--------------|-----------|-------|------------|--|--------|------|------------|--|
|              | Verbal    | Math  | Analytical |  | Verbal | Math | Analytical |  |
| Black        | 470       | 530   | 520        | Black                                  | 395    | 404  | 411        |  |
| Hispanic     | 459       | 504   | 486        | Hispanic                               | 473    | 501  | 497        |  |
| Puerto Rican | 555       | 545   | 580        | Puerto Rican                           | 408    | 454  | 435        |  |
| White        | 540       | 520   | 600        | White                                  | 518    | 543  | 561        |  |
| Cohort Mean  | 476       | 520.5 | 515.5      | Cohort Mean                            | 485    | 562  | 536        |  |

| 1991-92      | McNair Co | ohort |            | 1990-91 Mean G | RE Scores | All Tes | st Takers  |
|--------------|-----------|-------|------------|----------------|-----------|---------|------------|
|              | Verbal    | Math  | Analytical |                | Verbal    | Math    | Analytical |
| Black        | 462       | 480   | 474        | Black          | 395       | 404     | 411        |
| Hispanic     | 460       | 560   | 572.5      | Hispanic       | 473       | 501     | 497        |
| Puerto Rican | 610       | 600   | 580*       | Puerto Rican   | 408       | 454     | 435        |
| White        | 610       | 540   | 510*       | White          | 518       | 543     | 561        |
| Cohort Mean  | 476       | 520.5 | 515.5      | Cohort Mean    | 485       | 562     | 536        |

| 1992-93      | McNair Co | ohort* . |            | 1990-91 Mean G | RE Scores | All Te | st Takers  |
|--------------|-----------|----------|------------|----------------|-----------|--------|------------|
|              | Verbal    | Math     | Analytical |                | Verbal    | Math   | Analytical |
| Black        | 480       | 565      | 552.5      | Black          | 395       | 404    | 411        |
| Hispanic     | 445       | 380      | 485        | Hispanic       | 473       | 501    | 497        |
| Puerto Rican | 575       | 540      | 615        | Puerto Rican   | 408       | 454    | 435        |
| White        | 370       | 455      | 415        | White          | 518       | 543    | 561        |
| Cohort Mean  | 467.5     | 485      | 517        | Cohort Mean    | 485       | 562    | 536        |

<sup>\*</sup> Single test date score. All other McNair scores are averages for two test dates.



### RESULTS: IMPACT ON THE UNIVERSITY

The McNair program has had a significant, positive impact on the University. Key University offices and units that relate to graduate education, such as the Office of Graduate Admissions, the Financial Aid Office, and the Career Services Unit, have collaborated and cooperated on behalf of McNair participants. These University offices provide group workshops as well as individual consultations to program participants. Moreover, directors of University programs that serve low-income, first-generation-college, and traditionally underrepresented students are aware of the opportunities the McNair program provides and can alert academically talented students to them.

The McNair program has had a positive impact on University academic departments as well. To date, faculty who serve as mentors have had generally positive experiences with McNair participants. McNair mentors are among the most respected faculty in their departments, and their glowing praise for their McNair students and the program has sparked a high level of interest in mentoring McNair participants among other faculty.

### PROBLEM: INSUFFICIENT GRADUATE SCHOOL FINANCIAL AID

American colleges and universities are in an era of tight money that threatens to become the norm and have a long-term negative effect on higher education. Many McNair graduates are fortunate enough to be admitted to graduate school and receive fellowships, but others lose out in the tight competition for limited fellowship funds, particularly at the university level. The competitive pressure for financial aid will continue to rise as the McNair programs nationwide enlarge the pool of students admitted to graduate education. McNair Scholars face tough competition for fellowships from second-generation-college, underrepresented students, and it is likely that, with each passing year, more and more McNair graduates will be unable to have their financial needs met through existing graduate education resources. The obvious answer to this problem is an expanded pool of federal dollars for McNair-type students that ensures them the funds they need for graduate school.



### **CONCLUSION**

The Ronald E. McNair Postbaccalaureate Achievement Program was established to prepare and assist academically talented first generation college, low-income, and traditionally underrepresented minority students to enter graduate programs which lead to doctoral degrees. The Rutgers McNair model assumes that being academically talented is not enough to gain admission to and persist in doctoral level studies, so the program emphasizes intense preparation, over time, for graduate school. Undergraduate participants remain in the program for two years--from their sophomore year through graduation.

There are seven features of the Rutgers McNair program that are the keys to its success. They are:

- 1. A multi-year program cycle that is designed to nurture and stimulate personal growth over time,
- 2. Sequenced preparation for supervised research and other scholarly activity,
- 3. Structured, high quality mentoring and research internship supervision by dedicated Rutgers faculty,
- 4. High quality academic advisement and counseling,
- 5. Preparation for graduate school life and the "academic" culture,
- 6. Assistance and preparation for the graduate school admissions and financial aid process, and
- 7. Support and cooperation from key units of Rutgers University.

The Rutgers McNair program has been very successful. Twenty-four of the 26 McNair Scholars who completed the program and earned their baccalaureate degrees were admitted to graduate school and 23 of the 26 program graduates, or 88 percent, were enrolled in graduate school as of September, 1994. These are impressive outcomes by any standard and they were achieved through the combined efforts of the McNair Scholars, the McNair Program, and University staff and faculty. Perhaps the most important lesson learned is that much of the McNair Program's success is attributable to the high level of collaboration and cooperation among everyone involved in the program.



### APPENDIX A Mentor and Research Internship Assignments



### C

# MCNAIR PROGRAM 1992-93 RESEARCH INTERNSHIPS

## 1990-91 COHORT

|      | <b>AENTOR</b> | È     |  |
|------|---------------|-------|--|
| AIK  | Z             | RTMEN |  |
| MCNA | FACUL         | DEPA  |  |

Roland Anglin Political Science Henry Rutgers Advisor

Jerome Aumente Journalism Resources Institute Mabel Smith Douglass Advisor Maurice Elias Psychology Henry Rutgers Advisor Charles Flaherty Psychology Henry Rutgers Advisor

Charles Flaherty Psychology

Eileen Kowler Psychology Larry Katz Animal Science Mabel Smith Douglass Advisor

# RESEARCH PROJECT TITLE

Race, Class, and Economic Development: A Case Study of Newark, New Jersey Research into Journalism Resources Institute Projects in Europe; Electronic Publishing and Urban Affairs Media Coverage The Improving Social Awareness-Social Problem Solving (ISA-SPS) Project: School-Based Services and Research to Promote Positive Social Decision Making and Prevent Substance Abuse and Related Difficulties

Radial-Arm Maze Complexity and Duration of Negative Contrast

Factors Influencing Successive Negative Contrast Effects Limits of Spacial Attention Involving a Cue

Role of Progesterone Priming in the Induction of Sexual Behavior in Female Goats During the Non-Breeding Season

## MCNAIR SCHOLAR

Dudley Benoit

Tracie Goode

Carmen Dickerson Claudia Paolini

**Edison Perdomo** 

Edward Wingren

Edward Wingren

.

Cassandra Nunez

| Lewis Hirsch<br>Mathematics   | Analysis of Nonstandard Items on the<br>New Jersey Basic Skills Test                    | Tamara Gray        |
|---|---|--------------------|
| Frank Pearson<br>Sociology  | Perceived and Actual Risks of School-Related Victimization                              | Indhira De La Paz  |
| Pedro Caban<br>Puerto Rican Studies   | A Comparative Analysis Of Cuba<br>Post 1959 to the Present                              | Giselle Hernandez  |
| Ikechukwu Ukeje<br>University of<br>Medicine and Dentistry<br>of New Jersey | Cisco A. Carter Minority Gifted<br>Project  | Gabriel Longhi     |
| George Atwood<br>Psychology<br>Henry Rutgers Advisor                        | The Psychology of Manic-Depression:<br>A Subjective Approach                            | Gabriel Longhi     |
| Lloyd Gardner<br>History<br>Henry Rutgers Advisor                           | Walt Rostow, McGeorge Bundy, Robert<br>McNamara, Vietnam, and the Transition<br>of 1963 | Christopher Fisher |
| David Oshinsky<br>History<br>Henry Rutgers Advisor                          | Blacks in Asbury Park, New Jersey:<br>A Brief Social History                            | Clive Davis        |



## 1991-92 COHORT

|        | MENTOR    | MENT    |
|--------|-----------|---------|
| MCNAIR | FACULTY ] | DEPARTM |

Susan Lawrence Political Science Jennifer Mandelbaum Communication

Valerie Manusov Communication

Lesley Morrow Education

Ann O'Leary Psychology Max Pfeffer Human Ecology Edmund Stiles Biological Sciences

Michael Sukhdeo Animal Science Ikechukwu Ukeje University of Medicine and Dentistry of New Jersey

# RESEARCH PROJECT TITLE

Democracy and the Judicial Role

Exploration of Relational Messages in Romantic Relationships

From Attributions to Accounts: The Changing Nature of Sense-Making [Similarity Moves in Initial Interaction]

The Differences in Characteristics of Child and Teacher Behavior in Cooperative School Periods

Project LIGHT [Living in Good Health Together]

Agriculture and Development Planning on the Rural/Urban Fringe

Differential Lipid Metabolism in Migratory Frugivorous Songbirds

Parasite Habitat Selection: Behavior in a Predictable Environment [Heligmosomoides Polygypus: Behavior Adaptations During the Infection Period]

Cognitive Enrichment Intervention Project for Gifted, Minority Preschool and Kindergarten Children

## MCNAIR SCHOLAR

Manuel Salazar

.

Tiffany Simon

Tiffany Simon

Yvette Cupid

Haydee Perez

Angeline Perla

----

Angeline Perla

Alexander Hernandez

Мету МсVеу

| Monica Comas<br>Wendy Tineo                | David McKnight                                      | Adetumininu Oguntala  | Sandra Richards   |
|--|---|---|---|
| Consequential Reasoning in Pretend<br>Play | Public Perceptions of the Jury<br>Selection Process | The Signifying Monkey and the Use of Satire Among African Peoples and Subcultures | Coping with the First Year: A Qualitative Study of Beginning Teachers |
| Arlene Walker-Andrews<br>Psychology        | Richard Williams<br>Sociology                       | Wesley Brown<br>English   | William Firestone<br>Education  |



### 42

Angeline Perla

Haydee Perez

# MCNAIR PROGRAM 1993-94 RESEARCH INTERNSHIPS

### 1991-92 COHORT

|        | ⋧        |         |
|--------|----------|---------|
|        | Y MENTOF | MENT    |
| MCNAIR | FACULTY  | DEPARTN |

Wesley Brown English

Susan Lawrence Political Science Jennifer Mandelbaum Communication Mabel Smith Douglass Advisor

Lesley Morrow Graduate School of Education Henry Rutgers Advisor

The Signifying Monkey and the Use of Satire Among Peoples and Subcultures

RESEARCH PROJECT TITLE

Same famong i copies and succan

Democracy and the Judicial Role

Exploration of Relational Messages in Male-Female Dyads: Similarity Moves in Initial Interaction and Romantic Relationships

Topic 1: Independent Writing and Reading Appreciation Programs: The Differences in Characteristics of Child and Teacher Behavior in Cooperative Social Periods of Independent Reading and Writing (Summer 1993)

Topic 2: Writing and Reading Appreciation Periods: A Comparative Study of First, Second, and Third Grade (Summer 1993 - Spring, 1994)

Project LIGHT: The New Jersey AIDS Project (Living in Good Health Together): An Overall Status of Hispanic Participants

Differential Lipid Metabolism in Migratory Frugivorous Songbirds

MCNAIR SCHOLAR

Tumi Oguntala

Manuel Salazar

**Tiffany Simon** 

Yvette Cupid

Ann O'Leary Psychology

+

**Biological Sciences** 

**Edmund Stiles** 

| Michael Sukhdeo<br>Biological Sciences<br>Paul Robeson Honors<br>Advisor | Host Grooming Behavior and Transmission<br>of Heligmosomoides Polygyrus   | Alexander Hemandez |
|--|---|--------------------|
| Ikechukwu Ukeje<br>University of<br>Medicine and<br>Dentistry of NJ      | Topic 1: Cognitive Enrichment Intervention for Gifted Minority Pre-School and Kindergarten Children (Fall 1992 - Summer 1993)           | Мепу МсVеу         |
|  | Topic 2: The Predictability of Anger in<br>Toddlerhood<br>(Fall 1993 - Spring, 1994)  |                    |
| Arlene Walker-Andrews<br>Psychology<br>Henry Rutgers                     | Topic 1: An Alternative Explanation to<br>Leslie's "Decoupler"<br>Fall 1992 - Summer 1993)  | Monica Comas       |
| Auvisoi  | Topic 2: Causal Pretend Sequences in 15-18 Month Olds (Consequential Reasoning in Pretend Play) (Summer 1993)                           |                    |
|  | Topic 3: Manifestation of Pretense in<br>Children With Autism<br>(Fall 1993 - Spring, 1994)   |                    |
| Arlene Walker-Andrews Psychology Henry Rutgers                           | Topic 1: An Alternative Explanation to<br>Leslie's "Decoupler"<br>(Fall 1992 - Summer 1993)   | Wendy Tineo        |
| Advisor  | Topic 2: Causal Pretend Sequences in 15-8 Month Olds (Consequential Reasoning in Pretend Play) (Summer 1993)                            |                    |
| 43   | Topic 3: The Interplay Between False<br>Beliefs and Scripts: The<br>Development of a Pretend Play<br>Measure (Fall 1993 - Spring, 1994) | •                  |

ERIC

Full Tast Provided by ERIC

| _                | _         |
|------------------|-----------|
|                  |           |
|                  |           |
| Richard Williams | Sociology |
| ~                | S         |

William Firestone Graduate School of Education

Kathryn Edin Sociology

Public Perceptions of the Jury Selection Process

Coping in the First Year: A Study of Beginning Teachers (Summer 1993)

Home Is Where the Heart Is: A Study of How Welfare Mothers Make Their Housing Choices and Survive the Urban Housing Dilemma (Fall 1993 - Spring, 1994)

David McKnight

Sandra Richards

Sandra Richards

### 1992-93 COHORT

|        | <b>ENTOR</b> | H        |
|--------|--------------|----------|
| MCNAIR | FACULTY M    | DEPARTME |

John Aiello Psychology

Puerto Rican Studies Miguel Algarin

Africana Studies Leonard Bethel

Abena Busia English

Eagleton Institute Susan Carroll of Politics

Maurice Elias Psychology Jennifer Mandelbaum Communication

Puerto Rican Studies Jose Morales

Mechanical and Madara Ogot Engineering Aerospace

Ikechukwu Ukeje Dentistry of NJ University of Medicine and

# RESEARCH PROJECT TITLE

The Effect of Feedback Sign to Determine the Impact of Feedback on Mood Test Satisfaction and Performance

An Intellectual Discourse Toward the Creative Writing Process

Black Philosophy: Its Notion and **Possibility**  An Analysis of Three Contemporary African Artists Women in Congress and Their Effects on Public Policy: Women's Health

The Improving Social Awareness-Social Problem Solving Project

Exploration of Relational Messages in Male-Female Dyads The Afro-Indian Communities of Ecuador: A Historical Perspective

the Forces and Stresses Which Exist in the Design and Fabrication of Robotic Computer Simulation and Analysis of

Cognitive Enrichment Intervention for Gifted Minority Pre-School and Kindergarten Children

MCNAIR SCHOLAR

Maria Marcum

Joann Quinones

Roger Marsh

Lisa Ortiz

Audrey Geigel

Stephanie Rehbein Cherisse Wells

Olga Pavez

John Salazar

Illya Gerdes

Tania Slade



| Maria Kantziliery   | Maria Kantziliery  | Marjorie Mendez-Luna   | Marjorie Mendez-Luna  | Jerome Wright                                | Jerome Wright  |
|---|--|--|---|--|--|
| Project Light: The New Jersey Aids Project (Living in Good Health Together): An Overall Status of Hispanic Participants (Fall 1993) | Literature Review of Selected Abnormal Psychology Topics (Spring 1994) | Women in Congress and Their Effect on<br>Public Policy (Fall 1993) | Public Relations Internship with the University Communications Office (Spring 1994) | A Study of Zora Neale Hurston<br>(Fall 1993) | The Francophone Arc Between West Africa,<br>The Caribbean, and the Americas<br>(Spring 1994) |
| Ann O'Leary<br>Psychology   | George Atwood<br>Psychology  | Susan Carroll<br>Eagleton Institute<br>of Politics                 | William Owens<br>Assistant Vice-<br>President of<br>Communications                  | Gerald Davis<br>Africana Studies             | Kim Butler<br>Africana Studies   |





### U.S. Department of Education

Office of Educational Research and Improvement (OERI)

National Library of Education (NLE)

Educational Resources Information Center (ERIC)



### **Reproduction Release**

(Specific Document)

### I. DOCUMENT IDENTIFICATION:

| Title: Taking     | the First Steps Toward Graduate Education: | A Report on the Ronald E. |
|-------------------|--|---------------------------|
|                   | ostBaccalaureate Achievement Program       |                           |
| Author(s):        | Earl Preston Thomas                        |                           |
| Corporate Source: | Rutgers University, New Brunswick, NJ      | Publication Date:         |
|                   |  | October, 1994             |

### II. REPRODUCTION RELEASE:

In order to disseminate as widely as possible timely and significant materials of interest to the educational community, documents announced in the monthly abstract journal of the ERIC system, Resources in Education (RIE), are usually made available to users in microfiche, reproduced paper copy, and electronic media, and sold through the ERIC Document Reproduction Service (EDRS). Credit is given to the source of each document, and, if reproduction release is granted, one of the following notices is affixed to the document.

If permission is granted to reproduce and disseminate the identified document, please CHECK ONE of the following three options and sign in the indicated space following.

| The sample sticker shown below will be affixed to all Level 1 documents  | The sample sticker shown below will be affixed to all Level 2A documents   | The sample sticker shown below will be affixed to al<br>Level 2B documents   |  |
|--|--|--|--|
| PERMISSION TO REPRODUCE AND DISSEMINATE THIS MATERIAL HAS BEEN GRANTED BY  TO THE EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)                      | PERMISSION TO REPRODUCE AND DISSEMINATE THIS MATERIAL IN MICROFICHE, AND IN ELECTRONIC MEDIA FOR ERIC COLLECTION SUBSCRIBERS ONLY, HAS BEEN GRANZED BY  TO THE EDUCATIONAL RESOURCES | PERMISSION TO REPRODUCE AND DISSEMINATE THIS MATERIAL IN MICROFICHE ONLY HAS BEEN GRANTED BY  TO THE EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)  Level 2B |  |
| Level 1  | INFORMATION CENTER (ERIC)  |  |  |
| Level 1  | Level 2A   |  |  |
| T x  | <b>†</b>   | <b>†</b>   |  |
| Check here for Level 1 release, permitting reproduction and dissemination in microfiche or other ERIC archival media (e.g. electronic) and paper copy. | Check here for Level 2A release, permitting reproduction and dissemination in microfiche and in electronic media for ERIC archival collection subscribers only                       | Check here for Level 2B release, permitting reproduction and dissemination in microfiche only  |  |

If permission to reproduce is granted, but no box is checked, documents will be processed at Level 1.



| I hereby grant to the Educational Resources Information document as indicated above. Reproduction from the El  | RIC microfiche, or electronic media by p   | persons other than ERIC employees  |  |
|--|--|--|--|
| and its system contractors requires permission from the<br>libraries and other service agencies to satisfy information   | copyright holder. Exception is made for  | or non-profit reproduction by  |  |
| Signature:   | Printed Name/Position/Title:   |  |  |
| Courtres Morros  |  | arl Preston Thomas, Project Associate  |  |
| Organization/Address: Rutgers Student Support<br>Services Program, Lucy Stone Hall   | Telephone: 732-445-4001, x863  | Fax:<br>732-445-3519   |  |
| Rutgers, the State University 54 Göyce KilmerrAvenue 08854-4001  | E-mail Address:<br>prestöne@rci.rutgers.edu                                      | Date: April 3, 2000  |  |
| f permission to reproduce is not granted to ERIC, or, if y blease provide the following information regarding the avoidable available, and a dependable source can be specifignificantly more stringent for documents that cannot be | ailability of the document. (ERIC will ried. Contributors should also be aware t | not announce a document unless it is   |  |
| Publisher/Distributor:   |  | TO THE STATE OF STATE |  |
| Address:   |  | . Communication  |  |
| Price:   | en e   | CONTRACTOR DESCRIPTION DE LA CONTRACTOR  |  |
| IV. REFERRAL OF ERIC TO COPYRIGHT  | T/REPRODUCTION RIGHTS  | HOLDER:  |  |
| f the right to grant this reproduction release is held by soid ddress:   | meone other than the addressee, please p   | provide the appropriate name and   |  |
| Name: Dr. Earl V. Farrow, 1215 Maldon  | ado Drive, Pensacola Beach   | , FL 32561   |  |
| Address:   |  |  |  |
|  |  |  |  |

### V. WHERE TO SEND THIS FORM:



| i |
|---|
| : |
| : |

However, if solicited by the ERIC Facility, or if making an unsolicited contribution to ERIC, return this form (and the document being contributed) to:

ERIC Processing and Reference Facility 4483-A Forbes Boulevard Lanham, Maryland 20706 Telephone: 301-552-4200 Toll Free: 800-799-3742

e-mail: ericfac@inet.ed.gov WWW: http://ericfac.piccard.csc.com

EFF-088 (Rev. 9/97)

